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BROADLAND COUNCIL

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PLANNING CONTROL

Warmup®

UNDERFLOOR HEATING MADE **SIMPLE & AFFORDABLE™**

Installation Manual: Underfloor Heating Inscribed Cable System

TECHNICAL HELPLINE
0845 345 2288



IMPORTANT

Read this manual before attempting to install your underfloor heater. Incorrect installation could damage the heater and will invalidate your warranty.



GET YOUR
**FREE
GIFT**

by filling in your Guarantee
information online at
warmup.com

Do's & Don'ts

- ! The heating cable must be kept a minimum of 50mm apart, at all times.
- ! The heating wires must never cross.
- ! The heating cable must not be cut, damaged or shortened.
- ! The entire heating cable, including joints, must be laid under the floor screed.
- ! Installation of the heating wire on to a new concrete floor should not be carried out for approximately 30 days to allow the concrete to dry.
- ! Do not install the heating wire to stairways or up walls.

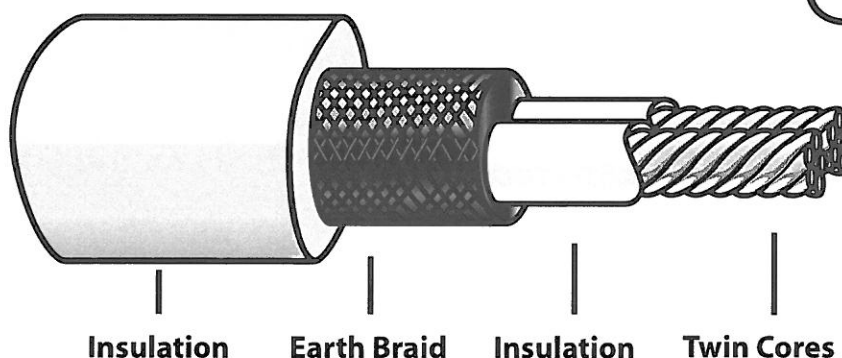
If these instructions are followed, you should have no problems. However, if you require assistance at any stage, please call our helpline on **0845 345 2288**.

NOTES

The Product

This product is a **Warmup® Inscreeed Heating Wire**. The wire has been designed to be placed within a cementitious screed of at least 50mm in thickness. The cable is a twin conductor surrounded by an earth shield for electrical protection. The heating cable is supplied with a 3 meter cold tail for connection to a thermostat. The product is designed for a 230 Volt electrical supply and produces between 100 to 200 Watts per square meter of heating, depending on the spacing of the wire (see sizing guide for details).

The heating element is both CE and SEMKO approved.



ELECTRICAL CONSIDERATIONS

Before installing the heating cable, a suitable 230 Volt electrical supply must be located. The electrical supply must be fitted with an RCD which should then have a thermostat connected to it. The wiring must be capable of the load required by the thermostat. All electrical installations must be carried out by a qualified and Part P certified or NICEIC registered electrician.

The installation of more than one product will require ALL the cold tails to be connected to the thermostat in parallel and NOT in series. Installations involving more than 2 heating wires may require a junction box. The cold tail consists of three wires, live, neutral and earth, these should all be connected within the thermostat. Caution should be taken to ensure that the combination of heaters does not exceed the maximum 16 amps supplied by the thermostat – see table on back cover for amperage calculations.

**The heating cable must not be cut or shortened or subjected to strain.
The cold tail can be shortened if required.**

Note: It is required that power to this product is supplied by a thermostat and RCD.

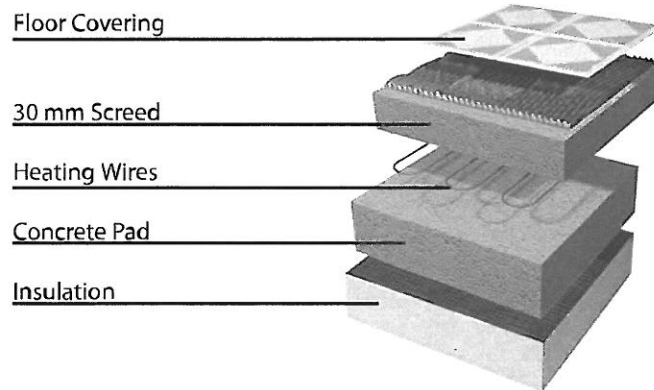
ALL electrical connections must be carried out by a qualified and Part P certified electrician.
ALL electrical regulations must be observed, including national and local deviations.

Subfloor Considerations

The **Warmup® Inscreeed Heating Wire** is designed to be placed within a cementitious screed of at least 50mm in thickness, with at least 30mm of screed above the heating wire. Depending on the construction of the subfloor, you may need to use additional insulation with your installation. See the diagrams below for details.

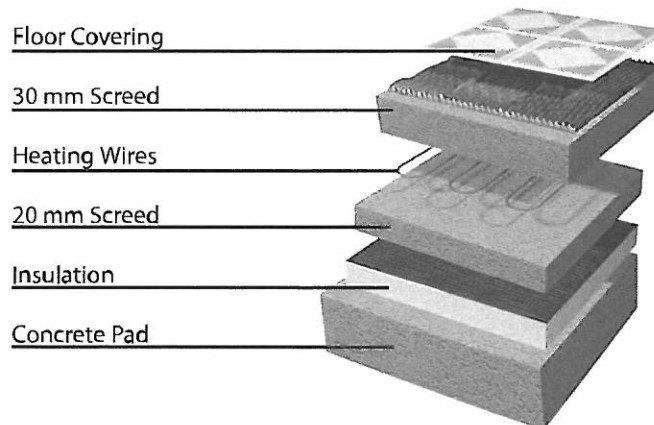
A IF CONCRETE PAD IS LESS THAN OR EQUAL TO 100mm & INSULATED:

You may install the heating cable directly on top of the concrete pad



B IF CONCRETE PAD IS MORE THAN 100mm OR UNINSULATED:

You must install insulation before laying the heating wire



The subfloor of the project should be suitable for screeding. The floor should be rigid, of a suitable material and free of debris and dust. Any holes in the floor should be sealed or filled with a suitable material. Any sharp objects or materials which may potentially damage the heating wire should be removed.

Installation (using metal fixing strips)

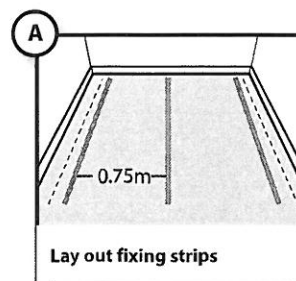
It is advised that a floor plan is drawn up to determine the placement of the thermostat, heating cable and the sensor probe. This diagram should be kept for future reference.

The metal fixing strips should be laid out perpendicular to the heating element runs. These fixing strips must be secured to the insulation or the concrete floor using fixing nails or an adhesive. It is important to ensure there is no movement of the fixings.

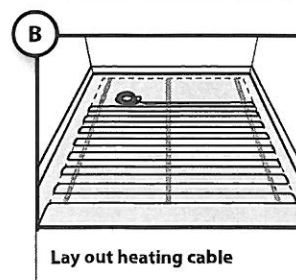
The fixing strips should be evenly spread across the floor at intervals of 0.75 metres. The fixing strips should be placed so as to leave a 100mm border all the way around the room.

The heating cable should then be laid up and down the room and clipped into the fixing strip. The cable spacing is determined by the product model (see sizing guide). The cables should be spaced evenly at all times to ensure an evenly heated floor (minimum spacing = 50mm). The cables should never touch or cross each other.

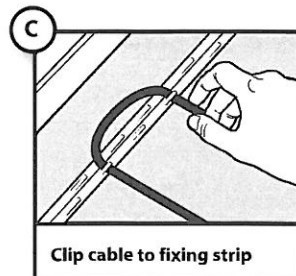
The heating cable cold tail should be connected to the thermostat by a qualified and Part P certified electrician. The heating cables should then be tested again before screeding. Once laid the heating cables must be covered with a minimum thickness of 30mm screed.



Lay out fixing strips



Lay out heating cable



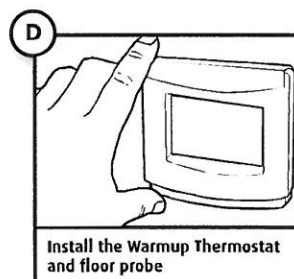
Clip cable to fixing strip

Connect Thermostat

Instructions for fitting the Warmup® Thermostat can be found inside the thermostat box.

The thermostat's sensor probe can be installed a number of ways:

1. Placed directly in the top 10mm of the screed covering the heating wire.
2. Cemented into a channel cut out of the surface of the screed.
3. Placed in a flexible conduit in the top 10mm of screed.

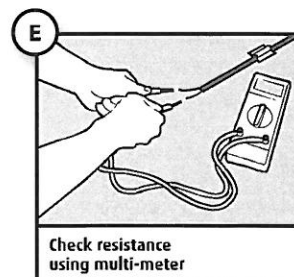


Testing

The heating cables should be tested to ensure the resistance is correct for the cable supplied (plus or minus 5%). Visual inspection of the cable should also be carried out to ensure there is no physical damage. The testing should be carried out before the cable is laid and after cable has been installed to ensure no damage has occurred during installation. If these readings are incorrect, please call our helpline on 0845 345 2288.

Temporarily wire each heater to a 13 amp plug, via an RCD in accordance with normal wiring regulations. Run each heater for approximately 10 minutes to ensure that the element heats up and is warm to the touch. Do NOT leave the heater on for more than 30 minutes. Completely disconnect the heater prior to and during screeding.

DO NOT SCREED if the heater is not working.



Note:

Installation of an additional earth metallic grid is NOT required, as an earth metallic sheath is already incorporated into the wire design, as per 601-09-04 of the BS7671 wiring regulations.

The heating cables should be tested again after screeding. The heating can be turned on after 7-28 days, after the screed has had time to dry completely.

Warranty

The warranty or guarantee for this product is 10 years. The guarantee does not affect customer statutory rights. Warmup PLC cannot be held responsible for damage or repairs required as a consequence of faulty installation or application OR due to the use of components or accessories which are not compatible with this unit.

Certifications

This product has a CE mark for sale within the European Union. CE marking is a declaration by the manufacturer that the product meets all the appropriate provisions of the relevant legislation implementing certain European Directives.

This product also has SEMKO Certification.

The product is a fixed installation and subsequently is outside the scope of the WEEE directive and is ROHS compliant.



IMPORTANT

The heating cable must be kept a minimum of 50mm apart, at all times.
The heating cable must not be cut, damaged or shortened.
The entire heating cable and joint must be laid under the floor screed.
Installation of the heating wire on to a new concrete floor should not be carried out for approximately 30 days to allow the concrete to dry.

If these instructions are followed, you should have no problems. However, if you require assistance at any stage, please call our helpline on 0845 345 2288.

Heater Sizing & Wire Spacing Guide

						100W/m ²	150W/m ²	200W/m ²
						Spacing 200mm	Spacing 133mm	Spacing 100mm
Heater Model	Heater Length	Overall Resistance	Voltage	Total Wattage	Total Amperage	Area covered (sqm)	Area covered (sqm)	Area covered (sqm)
WIS180	9.0	293.9	230	180.0	0.78	1.8	1.2	0.9
WIS280	14.0	188.9	230	280.0	1.22	2.8	1.9	1.4
WIS390	19.5	135.6	230	390.0	1.70	3.9	2.6	2.0
WIS500	25.0	105.8	230	500.0	2.17	5.0	3.3	2.5
WIS650	32.5	81.4	230	650.0	2.83	6.5	4.3	3.3
WIS760	38.0	69.6	230	760.0	3.30	7.6	5.1	3.8
WIS1000	50.0	52.9	230	1000.0	4.35	10.0	6.7	5.0
WIS1200	60.0	44.1	230	1200.0	5.22	12.0	8.0	6.0
WIS1460	73.0	36.2	230	1460.0	6.35	14.6	9.7	7.3
WIS1550	77.5	34.1	230	1550.0	6.74	15.5	10.3	7.8
WIS1770	88.5	29.9	230	1770.0	7.70	17.7	11.8	8.9
WIS2070	103.5	25.6	230	2070.0	9.00	20.7	13.8	10.4
WIS2600	130.0	20.3	230	2600.0	11.30	26.0	17.3	13.0
WIS3140	157.0	16.8	230	3140.0	13.65	31.4	20.9	15.7
WIS3370	168.5	15.7	230	3370.0	14.65	33.7	22.5	16.9

NOTE: All spacings have been based on square areas for calculation purposes. Therefore actual spacing will vary according to the shape of the area to be heated. All spacings should be measured from the centre of the wire.

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Warmup Plc 702 Tudor Estate, Abbey Road, London, NW10 7UW
T.0845 345 2288 F.0845 345 2299 E. uk@warmup.com
warmup.co.uk

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